



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
10/727,197	12/03/2003	R. Bharat Rao	2002P19745US01	4681				
7590 08/23/2007								
Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830		<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">FRENEL, VANEL</td></tr></table>			EXAMINER		FRENEL, VANEL	
EXAMINER								
FRENEL, VANEL								
		<table border="1"><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>3627</td><td></td></tr></table>			ART UNIT	PAPER NUMBER	3627	
ART UNIT	PAPER NUMBER							
3627								
		<table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>08/23/2007</td><td>PAPER</td></tr></table>			MAIL DATE	DELIVERY MODE	08/23/2007	PAPER
MAIL DATE	DELIVERY MODE							
08/23/2007	PAPER							

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/727,197  
Filing Date: December 03, 2003  
Appellant(s): RAO ET AL.

**MAILED**

AUG 23 2007

**GROUP 3600**

FRNCIS MONTGOMERY  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed April 4<sup>th</sup> , 2007 appealing from the Office action mailed January 26<sup>th</sup> , 2007

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6347329

EVANS

2-2002

Virginia Smith Harvin, Michael O Martin, Gustavo Gallego. Nursing Administration Quarterly. Frederick: "Managed Care: New Financial/Practice Strategies to Manage More Efficient /Effectively in a Primary Care Setting"; (Spring 1998). Vol.22, Iss.3; pg.53, 6pgs

PR Newswire, New York. "iMedica Creates the Most Comprehensive Charting Solution Harnessing the Power Of the Internet Wirelessly" (Jan 18, 2000. pg.1

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-51 are rejected under 35 U.S.C 103 (a). This rejection is set forth in prior Office Action. This rejection is set forth below as it appears in the previous Office Action mailed on 01.26/07.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Evans (6,347,329), (Managed Care: New Financial/ Practices Strategies to Manage More Efficient /Effectively in a Primary Care Setting by Virginia Smith Harvin; 1998) in view of (iMedica Creates the Most Comprehensive Charting Solution Harnessing the Power Of the Internet Wirelessly by PR Newswire, N.Y Jan.18, 2000).

(A) As per claim 1, Evans discloses a method for processing medical information, comprising the steps of:

obtaining a medical record of a patient (See Evans, Col.1, lines 36-58), wherein the medical record comprises patient information from one or more structured and unstructured data sources (See Evans Col.8, lines 34-65);

automatically extracting billing information from the medical record as part of the analysis (See Virginia, Page 4, Paragraphs 3-4).

Evans and Virginia do not explicitly disclose that the method having analyzing with a computer the patient information from at least the unstructured data source in the medical record using domain-specific criteria.

However, this feature is known in the art, as evidenced by PR Newswire. In particular, PR Newswire suggests that the method having analyzing with a computer the

patient information from at least the unstructured data source in the medical record using domain-specific criteria (See PR Newswire, Page 2, Paragraphs 2-5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features of PR Newswire within the collective teachings of Evans and Virginia with the motivation of providing a comprehensive, rapid charting solution that enables physicians to accurately chart in a fraction of time and access patient records on a secure Internet connection anytime, anywhere (See PR Newswire, Page 1, Paragraph 4).

(B) As per claim 2, PR Newswire discloses the method wherein extracting billing information comprises extracting one or more billing codes (Page 1, Paragraph 5).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(C) As per claim 3, Evans discloses the method wherein the billing codes comprise a diagnosis code, a procedure code or both (Col.9, lines 9-14).

(D) As per claim 4, Virginia discloses the method wherein the patient information comprises clinical information and financial information of the patient (Page 1, Paragraphs 1-5).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(E) As per claim 5, PR Newswire discloses the method wherein extracting billing information comprises extracting all billing codes that are supported by the patient information based on all domain-specific criteria in a domain knowledge base (See PR Newswire, Page 2, Paragraphs 2-5).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(F) As per claim 6, PR Newswire discloses the method wherein the domain-specific criteria comprises institution-specific domain knowledge (See PR Newswire, Page 2, Paragraphs 2-5).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(G) As per claim 7, Virginia discloses the method wherein the institution-specific domain knowledge relates to one or more of data at a hospital, document structures at a hospital, policies of a hospital, guidelines of a hospital, and variations at a hospital (See Virginia, Page 2, Paragraph 7).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(H) As per claim 8, Evans discloses the method wherein the domain-specific criteria

includes condition-specific or disease-specific domain knowledge (Col.7, lines 1-9).

(I) As per claim 9, Evans discloses the method wherein the condition-specific or disease-specific domain knowledge includes one or more of factors that influences risk of a condition or disease, disease progression information, complications information, outcomes and variables related to a condition or disease, measurements related to a condition or disease, and policies and guidelines established by medical bodies (Col.14, lines 45-67).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(J) As per claim 10, Evans discloses the method further comprising generating an explanation that includes one or more pointers to relevant patient information, relevant domain-specific criteria, or relevant patient information and domain-specific criteria, which supports the extracted billing information (Col.8, lines 34-65).

(K) As per claim 11, Virginia discloses the method further comprising presenting the explanation to a user for verifying the billing information (Page 4, Paragraphs 3- 4).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(L) As per claim 12, Virginia discloses the method further comprising automatically



generating a medical claim for the patient using the extracted billing information (Page 4, Paragraphs 3-7).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(M) As per claim 13, Virginia discloses the method further comprising: presenting the extracted billing information to the user for verification (Page 4, Paragraphs 1-7), and automatically generating a medical claim for the patient using the extracted billing information, if the extracted billing information is verified by the user (Page 4, Paragraphs 1-7).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(N) As per claim 14, Virginia discloses the method further comprising: modifying the extracted billing information in response to user input, if the billing information is not verified by the user (Page 4, Paragraphs 1-7); and automatically generating a medical claim for the patient using the modified extracted billing information (Page 4, Paragraphs 1-7).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(O) As per claim 15, Virginia discloses the method further comprising automatically

Art Unit: 3627

updating the medical record of the patient using the extracted billing information (Page 5, Paragraphs 1-8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(P) As per claim 16, Virginia discloses the method wherein automatically updating the medical record comprises using the extracted billing information to (i) correct billing information in the medical record, which is determined to be incorrectly recorded in the medical record or (ii) insert billing information into the medical record, which is determined to be missing from the medical record (Page 5, Paragraphs 1-8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(Q) As per claim 17, Virginia discloses the method further comprising presenting an updated medical record to a user for verification, wherein automatically updating the medical record of the patient is performed in the updated medical record is verified by the user (Page 5, Paragraphs 1-8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(R) As per claim 18, Virginia discloses the method further comprising: (a) automatically assessing the quality of the patient information of the medical record using

Art Unit: 3627

the extracted billing information to obtain quality assessment results (Page 5, Paragraphs 1-8); and (b) storing the quality assessment results for the medical record (Page 5, Paragraphs 1-8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(S) As per claim 19, Virginia discloses the method further comprising performing steps (a) and (b) for a plurality of medical records in an electronic database (Page 5, Paragraphs 1-10); and automatically generating quality assurance statistics based on the quality assessment results obtained for the plurality of medical records (Page 4, Paragraphs 6-11).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(T) As per claim 20, Virginia discloses the method wherein the quality assessment results comprise information regarding occurrences of correct, incorrect and/or missing billing codes in the medical record (Page 1, Paragraphs 7-10, Page 2, Paragraphs 13 to Page 3, Paragraphs 1-11).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(U) As per claim 21, Virginia discloses the method further comprising automatically

determining an expected amount of medical billing reimbursement based on the extracted billing information (Page 2, Paragraph 1-7, Page 4, Paragraphs 1-4).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(V) As per claim 22, Virginia discloses the method further comprising: maintaining the expected amount in the medical record (Page 4, Paragraphs 2-7), and reconciling the expected amount with an actual reimbursement received (Page 4, Paragraphs 7-11; Page 5, Paragraphs 1-8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(W) As per claim 23, Virginia discloses the method wherein determining an expected amount of medical billing reimbursement further depends on whether or not clinical guidelines have been followed as specified by domain-specific criteria (Page 4, Paragraphs 7-11, Page 5, Paragraphs 1-8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(X) As per claim 24, Virginia discloses the method wherein the explanation further comprises information as to whether or not clinical guidelines have been followed as specified by domain-specific criteria (Page 4, Paragraphs 7-11 ; Page 5, Paragraphs 1-

Art Unit: 3627

8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(Y) As per claim 25, Evans discloses a system for processing medical information (See Evans, Col.1, lines 36-58) comprising: patient information from structured and unstructured data sources, by analyzing the patient information from at least the unstructured data source using domain-specific criteria (See Evans, Col.8, lines 34-67), and an engine of a device that automatically extracts billing information from a medical record (See Virginia, Page 4, Paragraphs 3-4).

The combination of Evans and Virginia do not explicitly disclose a knowledge base comprising domain-specific criteria.

However, this feature is known in the art, as evidenced by PR Newswire. In particular, PR Newswire suggests a knowledge base comprising domain-specific criteria (See PR Newswire, Page 2, Paragraphs 2-5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features of PR Newswire within the collective teachings of Evans and Virginia with the motivation of providing a comprehensive, rapid charting solution that enables physicians to accurately chart in a fraction of time and access patient records on a secure Internet connection anytime, anywhere (See PR Newswire, Page 1, Paragraph 4).

Art Unit: 3627

(Z) As per claim 26, Virginia discloses the system wherein the engine extracts billing information comprising billing codes (Page 2, Paragraph 13).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(AA) As per claim 27, Evans discloses the system wherein the billing codes comprise diagnosis codes, procedure codes, or both (Col.9, lines 9-14).

(BB) As per claim 28, Evans discloses the system wherein the engine generates an explanation that includes one or more pointers to relevant patient information, relevant domain-specific criteria, or relevant patient information and domain-specific criteria, which supports the extracted billing information (Col.8, lines 34-65).

(CC) As per claim 29, Virginia discloses the system further comprising a user interface for presenting the explanation to a user to enable the user to verify the extracted billing information (Page 4, Paragraphs 3- 4).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(DD) As per claim 30, Virginia discloses the system further comprising an automated billing system that automatically generates a medical claim for the patient using the extracted billing information output from the engine (Page 4, Paragraphs 3-7).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(EE) As per claim 31, Virginia discloses the system further comprising a user interface that presents the extracted billing information to a user and enables a user to verify the extracted billing information and modify the extracted billing information before automatically generating a medical claim based on the verified or modified billing information (Page 2, Paragraphs 5-13 to Page 3, Paragraphs 1-11).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(FF) As per claim 32, Virginia discloses the system wherein the engine can automatically update the medical record of the patient using the extracted billing information (Page 5, Paragraphs 1-8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(GG) As per claim 33, Virginia discloses the system, wherein the engine can automatically update the medical record by using the extracted billing information to (i) correct billing information in the medical record, which is determined to be incorrectly recorded in the medical record or (ii) insert billing information into the medical record, which is determined to be missing from the medical record (Page 5, Paragraphs 1-8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(HH) As per claim 34, Virginia discloses the system further comprising a user interface that presents an updated medical record to a user and enables the user to verify the updated medical record before automatically updating the medical record of the patient (Page 5, Paragraphs 1-8).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(II) As per claim 35, Virginia discloses the system wherein the engine can automatically assess the quality of patient information for each of a plurality of medical records using extracted billing information from each of the medical records and automatically generate quality assurance statistics based on the quality assessment results obtained for the plurality of medical records (Page 4, Paragraphs 6-11).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(JJ) As per claim 36, Virginia discloses the system wherein the quality assessment results comprise information regarding occurrences of correct, incorrect and/or missing billing codes in the medical record (Page 1, Paragraphs 7-10., Page 2, Paragraphs 13 to Page 3, Paragraphs 1-11).



The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(KK) As per claim 37, Virginia discloses the system wherein the engine can automatically determine an expected amount of medical billing reimbursement based on the extracted billing information from the medical record and reconciles the expected amount with an actual reimbursement received (Page 1, Paragraphs 7-10; Page 2, Paragraphs 13 to Page 3, Paragraphs 1-11).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(LL) As per claim 38, Virginia discloses the system wherein the system operates as a service by a service provider for processing patient medical records in a database of a subscribing entity (Page 5, Paragraphs 1-10).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(MM) As per claim 39, Evans discloses obtaining a medical record of a patient (Col.1, lines 36-48), wherein the medical record comprises patient information from one or more structured and unstructured data sources (See Evans, Col.8, lines 3435); and automatically extracting billing information from the medical record by analyzing the patient information in the medical record using domain-specific criteria (See Virginia,

Page 4, Paragraphs 3-4).

Evans and Virginia do not collectively disclose a program storage device readable by a machine, tangibly embodying a program of instructions executable on the machine to perform method steps for processing medical information.

However, this feature is known in the art, as evidenced by PR Newswire. In particular, PR Newswire suggests a program storage device readable by a machine, tangibly embodying a program of instructions executable on the machine to perform method steps for processing medical information (See PR Newswire, Page 2, Paragraph 12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features of PR Newswire within the collective teachings of Evans and Virginia with the motivation of providing a comprehensive, rapid charting solution that enables physicians to accurately chart in a fraction of time and access patient records on a secure Internet connection anytime, anywhere (See PR Newswire, Page 1, Paragraph 4).

(NN) As per claim 40, Virginia discloses the program storage device wherein the instructions for extracting billing information comprise instructions for extracting one or more billing codes (Page 2, Paragraph 13).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

Art Unit: 3627

(OO) As per claim 41, Virginia discloses the program storage device wherein the patient information comprises clinical information and financial information of the patient (Col.9, lines 9-14).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(PP) As per claim 42, PR Newswire discloses the program storage device wherein the instructions for extracting billing information comprise instructions for extracting all billing codes that are supported by the patient information based on all domain-specific criteria in a domain knowledge base (See PR Newswire, Page 2, Paragraphs 2-5).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(QQ) As per claim 43, PR Newswire discloses the method wherein automatically extracting comprises inferring a diagnosis and the associated billing information from the medical record (See PR Newswire, Page 2; Paragraphs 4 to Page 3, Paragraph 4).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(RR) As per claim 44, PR Newswire discloses the method wherein inferring the diagnosis and the associated billing information from the medical record without

Art Unit: 3627

reference to diagnosis codes (See PR Newswire, Page 2; Paragraphs 4 to Page 3, Paragraph 4).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(SS) As per claim 45, Virginia discloses the system wherein inferring comprises determining a probability (See Virginia, Page 4, Paragraphs 5-9).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(TT) As per claim 46, Virginia discloses the system wherein the engine is operable to infer a diagnosis and the associated billing information from the medical record (See Virginia, Page 4, Paragraphs 2-4).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(UU) As per claim 47, PR Newswire discloses the system wherein inferring the engine is operable to infer a diagnosis and the associated billing information from the medical record without reference to diagnosis codes (See PR Newswire, Page 2, Paragraphs 4-12).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(VV) As per claim 48, Virginia discloses the system wherein the engine is operable to determine a probability associated with the inferred diagnosis (See Virginia, Page 4, Paragraphs 5-9).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(WW) As per claim 49, PR Newswire discloses the program storage device wherein automatically extracting comprises inferring a diagnosis and the associated billing information from the medical record (See PR Newswire, Page 2, Paragraphs 4-12).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(XX) As per claim 50, PR Newswire discloses the program storage device wherein inferring comprises the diagnosis and the associated billing information from the medical record without reference to diagnosis codes (See PR Newswire, Page 2, Paragraphs 4-12).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

(YY) As per claim 51, Virginia discloses the program device wherein inferring comprises determining a probability (See Virginia, Page 4, Paragraphs 5-9).

The motivation for combining the respective teachings of Evans, Virginia and PR Newswire and the rejection of claim 1 above, and incorporated herein.

**(10) Response to Argument**

In the Appeal Brief filed on 4/20/07, Appellant makes the following arguments:

(i) The combination of Evans, Harvin / Virginia and PR Newswire fails to teach either expressly or inherently, each and every element recited in the claims discussed below.

(ii) The combination of references and each reference fails to teach or suggest "analyzing with a computer the patient information from at least the unstructured data source in the medical record using domain-specific criteria; and automatically extracting billing information from the medical record as part of the analysis.

(iii) There is no suggestion to analyze unstructured data. Secure and redundant storage also does not provide for extraction of billing information as a function of the analysis of the unstructured data.

(iv) There is no disclosure of extracting all codes supported by the patient record and no disclosure of extracting as a function of all domain specific criteria.

(v) The references do not suggest using the domain knowledge specifically to extract information from unstructured sources in the medical record.

(vi) Evans does not show an engine for analyzing the patient information from at least the unstructured data source using the domain specific criteria.

(vii) Evans does not extract all billing codes.

(viii) The combination of Evans, Harvin /Virginia and PR Newswire does not teach or suggest "institution specific domain knowledge".

(ix) The combination of Evans, Harvin /Virginia and PR Newswire does not teach or suggest an explanation with a pointer to information supporting the extracted billing information.

(x) The combination of Evans, Harvin /Virginia and PR Newswire does not teach or suggest automatically determining an expected amount of reimbursement.

(xi) The combination of Evans, Harvin /Virginia and PR Newswire does not teach or suggest inferring without reference to diagnosis codes.

(xii) There is no suggestion of determining a probability as part of inferring a diagnosis with a computer.

Examiner will address Appellant's arguments in sequence as they appear in the Brief.

(i) In response to Appellant first argument, it is respectfully submitted that obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Hedges*, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir.1992); *In re Piasecki*, 745 F.2d 1468,1472, 223 USPQ 785, 788 (Fed.Cir.1984); and *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Using this standard, the Examiner respectfully submits that he has at least satisfied the burden of presenting a prima facie case of obviousness, since he has presented evidence of corresponding claim elements in the prior art and has expressly articulated the combinations and the motivations for combinations that fairly suggest Appellant's claimed invention. Note, for example, in the rejection of claim 1, Examiner had stated the following:

A s per claim 1, Evans discloses a method for processing medical information, comprising the steps of:

obtaining a medical record of a patient (See Evans, Col.1, lines 36-58), wherein the medical record comprises patient information from one or more structured and unstructured data sources (See Evans Col.8, lines 34-65);



Art Unit: 3627

automatically extracting billing information from the medical record as part of the analysis (See Virginia, Page 4, Paragraphs 3-4).

Evans and Virginia do not explicitly disclose that the method having analyzing with a computer the patient information from at least the unstructured data source in the medical record using domain-specific criteria.

However, this feature is known in the art, as evidenced by PR Newswire. In particular, PR Newswire suggests that the method having analyzing with a computer the patient information from at least the unstructured data source in the medical record using domain-specific criteria (See PR Newswire, Page 2, Paragraphs 2-5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the features of PR Newswire within the collective teachings of Evans and Virginia with the motivation of providing a comprehensive, rapid charting solution that enables physicians to accurately chart in a fraction of time and access patient records on a secure Internet connection anytime, anywhere (See PR Newswire, Page 1, Paragraph 4).

As such, it is respectfully submitted that an explanation based on logic and sound scientific reasoning of one ordinary skill in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner in the previous Office Actions, incorporated herein, Ex parte Levengood, 28USPQ2d 1300 (Bd. Pat. App. & Inter., 4/22/93).

Art Unit: 3627

(ii) With respect to the second argument, it is respectfully submitted that Appellant has already stated in the Specification on page 10, lines 21-23 "The unstructured data sources include for example, free text based documents (e.g., physician reports etc.)" which can be seen in Fig.8 of Evans. It appears that Appellant seeks to assign a specific meaning to the "unstructured " which is not explicitly defined via a positive and concrete definition within the present specification, nor further refined in the bodies of the pending claims. As such, the Examiner respectfully submitted that such terms were given their broadest reasonable interpretations during examination, and since the applied reference clearly discloses the claimed limitations, when given their broadest reasonable interpretations, it is respectfully submitted that the Examiner's reliance on the combination of Evans, Harvin/Virginia and PR Newswire is indeed proper.

Further, Appellant fails to properly consider the clear and unmistakable teachings of the applied references, particularly PR Newswire reference for his teaching "A major benefit of Physician Suite is the Superbill. The solution automatically recommends billing codes based on the charting results and is compliant with reimbursement regulations published by the Health Care Financing Administration (HCFA), with regulates Medicare. This feature assures correct and accurate billing is accomplished quickly providing an audit trail of supporting coding documentation with minimal effort" (See PR Newswire, Page 3, Paragraph 1) which correspond to Appellant's claimed feature. Therefore, Appellant argument is not persuasive and the rejection is hereby sustained.

(iii) With respect to Appellant third argument, it is respectfully submitted that Appellant has been defined unstructured data as free text documents (e.g., physician reports etc.). Further, Appellant fails to properly consider the clear and unmistakable teachings of the applied references, particularly PR Newswire reference whose stated “There are few things as personal as one’s medical record” said Kathleen A. O’Connor, MBA, healthcare consultation in medical record security. The Health Insurance Portability and Accountability Act (HIPPA) of 1996 mandates security guidelines for electronic applications involving patient personal and medical information. By adopting a multi-layer encryption and a proprietary security control measure, iMedica assures data privacy”. O’Connor said. Files are backed up in the same secure site used by Blue Shield, Kaiser and VISA International to store their sensitive data. Finally, to prevent any data loss, each patient record is stored with multiple redundancy (See PR Newswire, Page 2, Paragraph 12) which correspond to Appellant claimed feature. Therefore, Appellant argument is not persuasive and the rejection is hereby sustained.

(iv) With respect to Appellant fourth argument, Examiner respectfully submitted that He relied upon the clear and unmistakable teachings in Fig.14 of Evans for such a feature. Furthermore, Evans stated in Column 9 “In addition, the patient record 220 includes patient data in a variety of data types generated by healthcare providers. The patient Thus, the patient record includes text data 223, such as electronic mail and word processing documents from other healthcare providers, image data 225, such as scanned physical documents, x-rays and CATSCANS and audio data 227, such as a

physician dictation and voice mail. Lastly, the patient record 220 has data tables 229, such as a physician's ICD 9 diagnosis codes and CPT procedure codes (See Evans, Col.9, lines 3-12) which correspond to Appellant's claimed feature. Therefore, Appellant argument is not persuasive and the rejection is hereby sustained.

(v) With respect to the fifth argument, Appellant respectfully submitted on page 12 of Specification that "medical diagnosis" is also "equivalent" to domain specific condition. Therefore, in this present case, iMedica suggested that "Knowledgebase the key to intelligent Rapid Charting. PhysicianSuite enables comprehensive documentation of the patient encounter in less time. When the physician has arrived at a diagnosis the specialty knowledge guides the physician through an intuitive sequence of medical choices and ICD-9CM diagnoses codes. Choosing from preinstalled Common Disease Template (CDT), PhysicianSuite designates the symptoms most commonly associated with each diagnosis, making chart development considerably faster than using conventional methods (See iMedica, Page 2, Paragraph 5) which correspond to Appellant's claimed feature. Therefore, Appellant argument is not persuasive and the rejection is hereby sustained.

(vi) With respect to the sixth argument, Examiner respectfully submitted He has already addressed this issue in Paragraph (iii) above, and incorporated herein.

(vii) With respect to the seventh argument, Examiner respectfully submitted that He relied upon the clear teaching of iMedica (See Page 3, Paragraphs 1-2) which correspond to Appellant claimed feature. Therefore, Appellant argument is not persuasive and the rejection is hereby sustained.

(viii) With respect to the eighth argument, Examiner respectfully submitted that He relied upon the clear teaching of Harvin/Virginia See Page 4, Paragraph 3 which correspond to Appellant claimed feature. Therefore, Appellant argument is not persuasive and the rejection is hereby sustained.

(ix) With respect to the ninth argument, Examiner respectfully submitted that He relied upon the clear teaching of PR Newswire See Page 2, Paragraphs 10-Page 3, Paragraph 4) which correspond to Appellant claimed feature. Therefore, Appellant argument is not persuasive and the rejection is hereby sustained.

(x) With respect to the tenth argument, Examiner respectfully submitted that He relied upon the clear teaching of Harvin/Virginia for such a feature See Page 1, Paragraphs 7 to Page 2, Paragraph 3 which correspond to Appellant argument. Therefore, Appellant argument is not persuasive and the rejection is hereby sustained.

(xi) With respect to the eleventh and twelfth argument, Examiner respectfully submitted that He relied upon the clear teaching of Harvin/Virginia See Page 4,

Art Unit: 3627

Paragraph 3 which correspond to Appellant claimed feature. Therefore, Appellant argument is not persuasive and the rejection is hereby sustained.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Vanel Frenel *V.F*

Patent Examiner

Art Unit 3627

August 16, 2007

Conferees:

Zeender Ryan Florian

*[Signature]* 8/20/07

Supervisory Patent Examiner

Art Unit 3627

**F. RYAN ZEENDER  
SUPERVISORY PATENT EXAMINER**

*[Signature]*

Millin Vincent

Appeal Specialist

Technology 3600

SIEMENS CORPORATION

170 WOOD AVENUE SOUTH

Application/Control Number: 10/727,197

Page 30

Art Unit: 3627

ISELIN, NJ 08830